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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR  | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/772,011      | 02/04/2004  | Stanford R. Ovshinsky | FC-120.3            | 4071             |

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ENERGY CONVERSION DEVICES, INC.  
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EXAMINER

MARTIN, ANGELA J

ART UNIT PAPER NUMBER

1745

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/772,011

Applicant(s)

OVSHINSKY ET AL.

Examiner

Angela J. Martin

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 6-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Objections*

1. Claims 6-26 are objected to because of the following informalities: The claims are misnumbered. The claims are numbered from 1-3 and then 6-26; claims 4 and 5 are missing. Appropriate correction is required.

### *Double Patenting*

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-3, 6-26 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-23 of U.S. Patent No. 6,998,184

B2. Although the conflicting claims are not identical, they are not patentably distinct

Art Unit: 1745

from each other because the claims of U.S. Pat. No. 6,998,184, fully anticipate the claims of the application.

### ***Claim Objections***

4. Claims 1-3, 6-26 are objected to because of the following informalities: It has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-3, 23, 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Suzuki et al., U.S. Pat. Application Pub. 2003/0180584 A1.

Rejection of claims 1-3, 23, 24 drawn to a hybrid fuel cell.

Suzuki et al., teach a hybrid fuel cell comprising a fuel cell portion and a rechargeable battery portion, the fuel cell and battery adapted to operate alone or in tandem (sect. 0016-0020). It teaches the anode is disposed between the fuel cell and

Art Unit: 1745

battery portions (Fig. 1-3). It teaches the anode is shared between the fuel cell and battery portions (Fig. 1-3). It teaches the battery is adapted to accept electrical current from a source of power external to hybrid fuel cell and adapted to accept electrical current produced by fuel cell (sect. 0156). It teaches the fuel cell and battery share an electrolyte (sect. 0167).

Thus, the claims are anticipated.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 6, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al., U.S. Pat. Application Pub. 2003/0180584 A1, in view of Ovshinsky et al. U.S. Pat. Application Pub. 2004/0248005 A1.

Rejection of claims 6, 7 drawn to a hybrid fuel cell.

Suzuki et al., teach a hybrid fuel cell as described above.

Ovshinsky et al., teach an anode active material including aluminum (abstract). It teaches 90-94 wt percent of anode active material and 3-9 wt percent of a binder. It teaches the anode comprises a hydrogen storage material. It teaches 0-94 wt percent of hydrogen storage material, 1-95 wt percent alloy, 3-9 wt percent binder, 2-5 wt percent conductive material (sect. 0024).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the teachings of Ovshinsky et al., into the teachings of Suzuki et al., because Ovshinsky et al., teach another type of anode active material for the battery, depending on the battery choice for a particular electrical device.

9. Claims 8-12, 14-22, 25, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al., U.S. Pat. Application Pub. 2003/0180584 A1, in view of Ovshinsky et al., U.S. Pat. No. 6,447,942 B1

Rejection of claims 8-12, 14-22, 25, 26 drawn to a hybrid fuel cell.

Suzuki et al., teach a hybrid fuel cell as described above.

Ovshinsky et al., teach the conductive material comprises graphite (col. 14, lines 50-53). It teaches the hydrogen storage material comprises Misch metal alloys, zirconium alloys, titanium alloys (col. 8, lines 46-58). It teaches a cathode in electrical communication with the anode (col. 12, lines 25-36). It teaches the cathode comprises a carbon matrix with an active catalyst material catalytic toward the dissociation of molecular oxygen (col. 4, lines 15-18; col. 10, lines 29-35). It teaches the catalyst is cobalt, manganese, nickel (col. 10, lines 22-26). It teaches an oxygen evolution electrode, which is a positive electrode, distributed on a substrate (col. 10, lines 51-65). It teaches electrocatalytic material comprises a host matrix and modifier element (col. 5, lines 64-67). It teaches host matrix comprises at least one transition metal (col. 5, lines 64-67). It teaches modifier selected from Li, K, Al (col. 10, lines 19-26). It teaches the electrocatalytic material comprises Ti and Ru (col. 9, lines 36-55). It teaches oxygen evolution electrode comprises conductive material of copper, nickel (claim 15). It

Art Unit: 1745

teaches conductive material in form of mesh, grid, foam, expanded metal (claim 16). It teaches hydrogen storage unit stores hydrogen in liquid or metal hydride form (col. 12, lines 62-67). It teaches the oxygen storage unit stores oxygen in gaseous form (col. 11, lines 64-67).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the teachings of Ovshinsky et al., into the teachings of Suzuki et al., because Ovshinsky et al., teach the a fuel cell which utilizes electrodes which "contain no costly noble metals and operate at ambient temperatures." In addition, the hydrogen storage materials store hydrogen and have "excellent catalytic activity."

10. Claim 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al., U.S. Pat. Application Pub. 2003/0180584 A1, in view of Menjak et al., U.S. Pat. Application Pub. 2003/0059664 A1.

Rejection of claim 13 drawn to a hybrid fuel cell:

Suzuki et al., teach a hybrid fuel cell as described above.

Menjak et al., teach the cathode comprises a peroxide decomposing material (sect. 0095).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the teachings of Menjak et al., into the teachings of Suzuki et al., because Menjak et al., give examples of cathode active material.

Art Unit: 1745

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela J. Martin whose telephone number is 571-272-1288. The examiner can normally be reached on Monday-Friday from 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



AJM